

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. - 69. (Canceled)

70. (Currently Amended) A method of load balancing among host servers of a data network, the method comprising:

storing, in a load balancing switch of the data network, round trip time data for a plurality of host server site switches, wherein the round trip time data for a host server site switch from the plurality of host server site switches indicates ~~[[is]]~~ a time for exchanging at least one message between ~~a first the~~ host server site switch ~~of the data network~~ and a first client machine of the data network, wherein each host server site switch from the plurality of host server site switches is associated with one or more host servers of the data network, the one or more host servers associated with a host server site switch being reachable via the host server site switch;
and

ordering, in the load balancing switch, a plurality of network addresses, the plurality of network addresses being responsive to a query regarding a domain host name, the plurality of network addresses determined from resolution of the host name, the plurality of network addresses comprising network addresses of multiple host server site switches from the plurality of host server site switches, wherein the load balancing switch is capable of ordering the plurality of network addresses based, at least in part, on the round trip time data stored for the multiple host server site switches.

71. (Previously Presented) The method of claim 70, further comprising:
creating a table, in the load balancing switch, using the round trip time data.

72. (Previously Presented) The method of claim 71, wherein the table is indexed by network neighborhood.

73. (Previously Presented) The method of claim 70, further comprising:
sending a health check message to each of the plurality of network addresses from the load balancing switch.

74. (Previously Presented) The method of claim 73, wherein the health check is a layer 7 health check.

75. (Previously Presented) The method of claim 74, wherein the layer 7 health check uses a HTTP protocol or a FTP protocol.

76. (Previously Presented) The method of claim 73, wherein the health check is a layer 4 health check.

77. (Previously Presented) The method of claim 76, wherein the health check is a TCP or UDP health check.

78. (Currently Amended) The method of claim 70, wherein ~~the first host server site switch is one of a plurality of host server site switches of the data network, and the first client machine is one of a plurality of client machines of the data network, and further comprising:~~

the first client machine is one of a plurality of client machines of the data network; and

storing, in the load balancing switch, round trip time data received from each of the plurality of host server site switches, wherein each said the round trip time data for a host server site switch comprises is a time information for exchanging at least one message between a respective one of the host server site switch switches and a respective one of each client machine from the plurality of client machines with which the host server site switch establishes a connection.

79. (Canceled)

80. (Canceled)

81. (Currently Amended) The method of claim ~~78~~ 70, wherein ~~for a host server site switch from the plurality of host server site switches, the time for exchanging at least one message~~ messages between the respective host server site switch and the respective first client machine is a time difference between the receipt, at the respective host server site switch, of a connection request message and a connection acknowledgement message from the respective first client machine.

82. (Currently Amended) The method of claim 81, wherein the connection request message comprises a TCP SYN packet and the connection acknowledgment message comprises ~~comprise a TCP SYN packet and~~ an associated TCP ACK packet; ~~respectively.~~

83. (Currently Amended) The method of claim ~~78~~ 70, wherein the query originated at the first client machine; and ~~further comprising wherein the ordering comprises:~~
ordering, in the load balancing switch, the generating an ordered list of network addresses from a first said network address from the plurality of network addresses to a last said network address from the plurality of network addresses, wherein the first said network address is associated with the one of a host server site switch from the plurality of host server site switches having a lowest round trip time with the first client machine and the last network address is associated with a host server site switch from the plurality of host server site switches having a highest round trip time with the first client machine.

84. (Currently Amended) The method of claim ~~83~~ 70, wherein ~~among the ordered network addresses a second said network address is associated with the one of the plurality of host server site switches having a next to lowest round trip time with the first client machine~~ the ordering comprises generating an ordered list of network addresses such that a network address from the plurality of network addresses associated with a host server site switch having a higher round trip time is ranked higher in the ordered list than a network address from the plurality of network addresses associated a host server site switch having a lower round trip time.

85. (Canceled)

86. (Currently Amended) A method of load balancing among host servers of a data network, the method comprising:

receiving, at a load balancing switch of the data network, a query regarding a domain host name; and

selecting, from a plurality of network addresses determined responsive to the request query, a best network address based, at least in part, on which of the plurality of network addresses has been least recently selected by the load balancing switch as a best network address in response to previous queries.

87. (Currently Amended) The method of claim 86, further comprising:

storing, at the load balancing switch, round trip time data received from a plurality of host server sites associated with the host servers, wherein ~~each said the~~ round trip time data received from a host server site comprises [[is]] a time for exchanging at least one message between ~~a respective one of a plurality of the~~ host server site switch ~~switches of the data network~~ and ~~a respective one of client machine from~~ a plurality of client machines ~~of the data network~~.

88. (Currently Amended) The method of claim 87, wherein the time for exchanging messages between the ~~respective~~ host server site switch and the ~~respective~~ client machine is a time difference between the receipt, at the ~~respective~~ host server site switch, of a connection request message and a connection acknowledgement message from the ~~respective~~ client machine.

89. (Previously Presented) The method of claim 87, further comprising:

creating, in the load balancing switch based on the round trip time data, a proximity table.

90. (Previously Presented) The method of claim 86, further comprising:

creating, in the load balancing switch, a proximity table.

91. (Currently Amended) A load balancing switch for load balancing amongst a plurality of host servers of a data network, the load balancing switch comprising:

a means for storing round trip time data received from a plurality of host server site switches, ~~each said~~ the round trip time data received from a host server site switch being a time for exchanging at least one message between ~~a respective one of said~~ the host server site ~~switch switches~~ and ~~a respective one of~~ first client machine from a plurality of client machines of the data network, wherein each host server site switch from the plurality of host server site switches is associated with one or more host servers from the plurality of host servers, the one or more host servers associated with a host server site switch being reachable via the host server site switch;

a means for receiving a query regarding a ~~domain~~ host name, the query originating at ~~[[a]]~~ the first client machine of the data network; and

a means for ordering a plurality of network addresses that are responsive to the query based, at least in part, on the stored round trip time data for ~~the query originating client machine~~ host server site switches from the plurality of host server site switches whose network addresses are included in the plurality of network addresses.

92. (Currently Amended) The load balancing switch of claim 91, further comprising:

a means for ordering the plurality of network addresses based, at least in part, on which of the network addresses in the plurality of network addresses has been least recently selected as a best network address in response to previous queries.

93. (Currently Amended) The load balancing switch of claim 91, further comprising:

a means for ordering the plurality of network addresses based, at least in part, on a session capacity ~~[[of]]~~ associated with host server site switches from the plurality of host server site switches whose network addresses are included in the plurality of network addresses.

94. (Currently Amended) The load balancing switch of claim 91, further comprising:

a means for ordering the plurality of network addresses based, at least in part, on an available session capacity [[of]] associated with host server site switches from the plurality of host server site switches whose network addresses are included in the plurality of network addresses, wherein the available session capacity associated with a host server site switch is a percentage of a session capacity of the ~~respective~~ host server site switch.

95. (Previously Presented) The load balancing switch of claim 91, further comprising:

a means for ordering the plurality of network addresses based, at least in part, on a health of the host servers.

96. (Currently Amended) A load balancing switch for load balancing amongst a plurality of host servers of a data network, the load balancing switch comprising:

a means for receiving a query regarding a ~~domain~~ host name; and

a means for ordering a plurality of network addresses that are determined responsive to the query, based, at least in part, on which of the network addresses has been least recently selected as a best network address in response to previous queries.

97. (Previously Presented) The load balancing switch of claim 96, further comprising:

a means for ordering the plurality of network addresses based, at least in part, on a session capacity of a plurality of host server site switches, each said host server site switch being coupled between the load balancing switch and at least one of the host servers.

98. (Currently Amended) The load balancing switch of claim 96, further comprising:

a means for ordering the plurality of network addresses based, at least in part, on an available session capacity of a plurality of host server site switches, each said host server site

switch being coupled between the load balancing switch and at least one of the host servers, wherein the available session capacity for a host server site switch is a percentage of a session capacity of the ~~respective~~ host server site switch.

99. (Previously Presented) The load balancing switch of claim 96, further comprising :
a means for ordering the plurality of network addresses based, at least in part, on a health of the host servers.

100. (Canceled)

101. (Canceled)

102. (Canceled)

103. (New) The method of claim 70 further comprising:
determining, based upon the ordering, if the plurality of network addresses comprises a single network address corresponding to a host server site switch with a round trip time data that is less than the round trip time data for any other host server site switch corresponding to a network address in the plurality of network addresses; and
upon determining that the plurality of network addresses does not comprise a single network address, reordering the plurality of network addresses using a criterion that is different than the round trip time data for the multiple host server site switches.

104. (New) The load balancing switch of claim 91 further comprising:
means for determining, based upon the ordering, if the plurality of network addresses comprises a single network address corresponding to a host server site switch with a round trip time data that is less than the round trip time data for any other host server site switch corresponding to a network address in the plurality of network addresses; and

upon determining that the plurality of network addresses does not comprise a single network address, means for reordering the plurality of network addresses using a criterion that is different than the round trip time data for the multiple host server site switches.

105. (New) A load balancing switch comprising:

a database configured to store round trip time data for a plurality of host server site switches, the round trip time data for each host server site switch from the plurality of host server site switches indicating a time for exchanging at least one message between the host server site switch and a client machine, each host server site switch from the plurality of host server site switches being associated with one or more host servers, the one or more host servers associated with a host server site switch being reachable via the host server site switch; and

a module configured to order a plurality of network addresses, the plurality of network addresses received by the load balancing switch in response to a query originating at the client machine, the plurality network addresses comprising network addresses determined from resolving a host name identified in the query, the plurality of network addresses comprising network addresses of multiple host server site switches from the plurality of host server site switches, wherein the network addresses in the plurality of network addresses are ordered based upon the round trip time data stored in the database for the multiple host server site switches.

106. (New) The load balancing switch of claim 105 wherein a table is created using the round trip time data for the plurality of host server site switches and indexed by network neighborhood.

107. (New) The load balancing switch of claim 105 further comprising a health check module configured to send a health check message to each of the plurality of network addresses.

108. (New) The load balancing switch of claim 107 wherein a health check sent to a network address in the plurality of network addresses is at least one of a layer 7 health check or a layer 4 health check.

109. (New) The load balancing switch of claim 105, wherein the time for exchanging messages between a host server site switch and the client machine is a time difference between the receipt, at the host server site switch, of a connection request message and a connection acknowledgement message from the client machine.

110. (New) A system comprising:
a load balancing switch configured to
receive a query regarding a host name,
receive, from a domain name server, a plurality of network addresses
corresponding to the host name, and
select, from the plurality of network addresses, a best network address
based on which of the plurality of network addresses has been least recently selected by the load
balancing switch as a best network address in response to previous queries received by the load
balancing switch.